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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,224

02/17/2004

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EXAMINER

DO, ANH HONG

ART UNIT

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2624

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,224	Applicant(s) KODAMA ET AL.	
	Examiner ANH H. DO	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 43-51 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 43-51 define a computer based structural organization embodying functional descriptive material. However, the claims do not define a computer readable medium or memory and is thus non-statutory for that reason (i.e., "when functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed a computer based structural organization can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The Examiner suggests amending the claims to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-8, 16, 18, 20, 22-29, 37, 39, 41, 43, 48, and 50 are rejected under 35 U.S.C. 102(a) as being anticipated by Cooper (U.S. Patent No. 6,359,548).

Regarding claim 1, Cooper discloses:

- code size setting unit 23 to set one or more code sizes (Fig. 1);
- a compression unit 10 to compress an image that is divided into a plurality of image quality levels in accordance with the code sizes (Fig. 1 and Fig. 3);
- a code generating unit 22 to generate code being divided into each code size (Fig. 1).

Regarding claim 20, Cooper discloses:

- code size setting unit 23 to set one or more code sizes (Fig. 1);
- a compression unit 10 to compress an image that is divided into a plurality of image quality levels in accordance with the code sizes (Fig. 1 and Fig. 3);
- a code generating unit 22 to generate code being divided into each code size (Fig. 1);
- a decompression unit 110 to decompress the code (Fig. 7) generated in the code generating unit 22 of the image compression apparatus 10 (Fig. 1).

Regarding claim 22, since this is a method claim corresponding to apparatus claim 1, the discussion of claim 1 is applied hereto.

Regarding claim 41, since this a method claim corresponding to apparatus claim 20, the discussion of claim 20 is applied hereto.

Regarding claim 43, since this claim recites similar subject matters as those in claim 1, the discussion of claim 1 is applied hereto.

Regarding claim 50, since this claim recites similar subject matters as those in claim 20, the discussion of claim 20 is applied hereto.

Regarding claims 2 and 23, Cooper teaches the quality level is a layer (Fig. 3).

Regarding claims 3-8 and 24-29, Cooper teaches a reference value (col. 14, lines 49-50: character value).

Regarding claims 16, 18, 37, 39 and 48, Cooper teaches a decompression unit 110 to decompress the code generated from the image compression apparatus (Fig. 7).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10-14, 17, 19, 21, 31-35, 38, 40, 42, 45, 46, 49, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper (U.S. Patent No. 6,359,548) in view of Levien (U.S. Patent No. 5,365,602).

Regarding claim 10, Cooper discloses:

- code size setting unit 23 to set a code size (Fig. 1);
- a compression unit 10 to compress the image data by adjusting the quality level in accordance with the code size (Fig. 1 and Fig. 3);

- a code generating unit 22 to generate code by referring to the code size
(Fig. 1).

Cooper does not disclose expressly a dividing unit to divide image data into a plurality of segments.

Levien discloses a dividing unit to divide the image code into a plurality of segments (i.e., 17 segments) (col. 4, lines 62-63).

Cooper & Levien are combinable because they are from image compression.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to employ the dividing unit in Cooper as taught by Levien.

The suggestion/motivation for doing so would have been to improve compression performance (Cooper, col. 2, lines 19-21).

Therefore, it would have been obvious to combine Cooper with Levien to obtain the invention as specified in claim 10.

Regarding claim 21, Cooper discloses:

- code size setting unit 23 to set a code size (Fig. 1);
- a compression unit 10 to compress the image data by adjusting the quality level in accordance with the code size (Fig. 1 and Fig. 3);
- a code generating unit 22 to generate code by referring to the code size (Fig. 1);
- a decompression unit 110 to decompress the code (Fig. 7) generated in the code generating unit 23 of the compression apparatus 10 (Fig. 1).

Cooper does not disclose expressly a dividing unit to divide image data into a plurality of segments.

Levien discloses a dividing unit to divide the image code into a plurality of segments (i.e., 17 segments) (col. 4, lines 62-63).

Cooper & Levien are combinable because they are from image compression.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to employ the dividing unit in Cooper as taught by Levien.

The suggestion/motivation for doing so would have been to improve compression performance (Cooper, col. 2, lines 19-21).

Therefore, it would have been obvious to combine Cooper with Levien to obtain the invention as specified in claim 21.

Regarding claim 31, since this is a method claim corresponding to apparatus claim 10, the discussion of claim 10 is applied hereto.

Regarding claim 42, since this is a method claim corresponding to apparatus claim 21, the discussion of claim 21 is applied hereto.

Regarding claim 45, since this claim recites similar subject matters as in claim 10, the discussion of claim 10 is applied hereto.

Regarding claim 51, since this claim recites similar subject matters as in claim 21, the discussion of claim 21 is applied hereto.

Regarding claims 17, 19, 38, 40 and 49, Cooper teaches a decompression unit 110 to decompress the code generated from the image compression apparatus (Fig. 7).

Regarding claims 11, 32 and 46, Levien teaches dividing the image data based on a code block (col. 6, lines 5-6).

Regarding claims 12-14 and 33-35, Levien teaches color segments (col. 2, lines 27-29) and resolutions and packets (col. 6, lines 25-28).

7. Claims 9, 30, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper (U.S. Patent No. 6,359,548) in view of Alvarez, II et al. (U.S. Patent No. 7,129,860).

Cooper discloses an image compression apparatus as discussed in claims 1, 24, and 43.

Cooper does not disclose expressly an embedding unit to embed the corresponding relation between the reference value and the code size into the generated code.

Alvarez discloses embedding unit to embed the corresponding relation between the reference value and the code size into the generated code (col. 49, lines 49-51).

Cooper & Alvarez are combinable because they are from image compression.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to employ embedding unit taught by Alvarez in Cooper.

The suggestion/motivation for doing so would have been to improve compression performance (Cooper, col. 2, lines 19-21).

Therefore, it would have been obvious to combine Cooper with Alvarez to obtain the invention as specified in claims 9, 30 and 44.

8. Claims 15, 36, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper (U.S. Patent No. 6,359,548) in view of Levien (U.S. Patent No. 5,365,602) and further in view of Alvarez, II et al. (U.S. Patent No. 7,129,860).

Cooper and Levien disclose an image compression apparatus as discussed in claims 10, 31, and 45.

Cooper does not disclose expressly an embedding unit to embed the corresponding relation between the reference value and the code size into the generated code.

Alvarez discloses embedding unit to embed the corresponding relation between the reference value and the code size into the generated code (col. 49, lines 49-51).

Cooper & Alvarez are combinable because they are from image compression.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to employ embedding unit taught by Alvarez in Cooper.

The suggestion/motivation for doing so would have been to improve compression performance (Cooper, col. 2, lines 19-21).

Therefore, it would have been obvious to combine Cooper with Alvarez to obtain the invention as specified in claims 15, 36 and 47.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EILEEN LILLIS can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 23, 2007

A handwritten signature in black ink, appearing to read 'anh do', with a long horizontal flourish extending to the right.

ANH HONG DO
PRIMARY EXAMINER